



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,989	09/30/2003	Young-Nam Yun	1190860-991270	7709
26379	7590	01/12/2005	EXAMINER	
DLA PIPER RUDNICK GRAY CARY USA, LLP			VU, PHU	
2000 UNIVERSITY AVENUE			ART UNIT	
E. PALO ALTO, CA 94303-2248			PAPER NUMBER	
			2871	

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/676,989	YUN ET AL.	
	Examiner	Art Unit	
	Phu Vu	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09/30/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by

Hinata et. al US Pre-Grant Pub. No. 2004/0051827.

Regarding claim 1, Hinata teaches a back light assembly that generates first light (fig.1 element 161), a liquid crystal display panel including an upper substrate (fig. 1 element 142), a lower substrate facing the upper substrate (fig. 1 element 141), and a liquid crystal layer (fig 1. element 149) interposes between the upper substrate and the lower substrate, the liquid crystal display panel receiving the first light generated from the back light assembly to display an image, a first polarizing plate (fig. 1 element 120) and a selective reflection polarizing plate (fig 1. element 110) disposed on the first polarizing plate, the selective-reflection polarizing plate selectively reflecting an external light, and a second polarizing plate (fig. 1 element 150) disposed on the lower substrate. **Regarding claim 13**, this claim mirrors claim 1 in method form and does not introduce any additional structure or steps not inherent to claim 1 therefore the rejection follows that of claim 1.

Regarding claim 2 and 14, the reference does not expressly disclose a second polarizing plate polarizes the first light generated light generated from the back light assembly, and the first polarizing plate analyzing a second light that passes through the liquid crystal, however, polarization of the first light generated from the back light is inherent to the

Art Unit: 2871

limitations of claim since the second polarizer of claim 1 will "polarize" light and is located directly in the path of the second light generated, and regarding the "analysis" of the second incoming light polarization can be considered a form of analysis therefore this limitation is inherent to the reference.

Regarding claims 4 and 16, the reference teaches the upper substrate includes color filters (fig. 10 element 244) arranged in a matrix shape, and a black matrix (fig. 10 element 243).

Regarding claims 6 and 18, the reference teaches the first polarizing axis of the first polarizer substantially parallel with the selective reflecting polarizing plate (see [0087]).

Regarding claims 10 and 22, the reference teaches a Dual Brightness Enhancing Film as the reflective polarizer (see [0085])

Regarding claims 11-12 and 23-24, the reference teaches a cholesteric liquid crystal polarizer (see [0085]). Cholesteric liquid crystals reflect circularly polarized light. Therefore these limitations are inherent to the reference.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3, 5, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinata.

Hinata discloses all the limitations of claims 3 and 15 except a selective reflection polarizing plate reflecting a portion of external light being over 50%. Hinata discloses all the

Art Unit: 2871

limitations of claims 5 and 17 except a black matrix consisting of one of aluminum, titanium, chromium, tantalum and a mixture thereof. However, it is conventional in the art to create black matrices of aluminum and its reflection rates reflective polarizers are typically over 50%. Conventionality has associated benefits of lower costs and proven effectiveness. Therefore at the time of the invention it would have been obvious to form a black matrix of aluminum and polarization rates greater than 50% in order to gain lower costs and proven effectiveness.

Regarding claims 9 and 21, the reference does not disclose a linear selective reflection film however, any linear reflective polarizer can be considered a "linear selective reflection film." Since a reflective polarizer by definition will reflect a portion of the light and select another to transmit and, and a linear polarizer use is conventional one skilled in the art would consider Hinata's reflective polarizer to be linear. Conventionality has advantages of lower costs, and proven effectiveness. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to use a linear reflective polarizer in the invention to gain lower costs and proven effectiveness.

Claims 7, 8, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinata as applied to claim 1 / 13 above, and further in view of Nishio US Pub. No 2002/0075433. Hinata does not disclose the polarization axis of the polarizers being parallel or perpendicular, however it is well-known in the art to configure angle between the polarization axes in order to make a display operate in a "normally white" or "normally black" mode. Nishio also discloses configuration of the polarization angles to change the display mode (see Nishio [0049-0050]). Therefore, at the time of the invention, it would have been obvious to configure the polarization angles between the two polarizers as necessary to create a display of white or black mode operation.

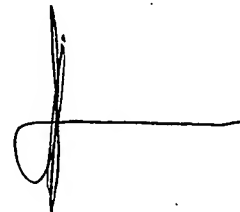
Art Unit: 2871

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu Vu whose telephone number is (571)-272-1562. The examiner can normally be reached on 8AM-5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571)-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phu Vu
Examiner
AU2871

A handwritten signature in black ink, appearing to be 'K. Parker', with a long horizontal line extending to the right.

**KENNETH PARKER
PRIMARY EXAMINER**